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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,244	12/28/2001	Hideaki Okamoto	1272.C0499	7485

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EXAMINER

VO, ANH T N

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/029,244

Applicant(s)
OKAMOTO ET AL.

Examiner
Anh T. N. Vo

Art Unit
2861



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 28, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-77 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6-7 6) ☐ Other:

DETAILED ACTION

Acknowledgement is made of the receipt of Preliminary Amendment filed 28 December 2001.

Oath/Declaration

The declaration filed 29 March 2002 is acceptable.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The references cited on PTO 1449 have been considered.

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

CLAIM REJECTIONS

Claim Rejections - 35 U.S.C. § 112

Claims 1-77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Clarification or correction is required.

In claim 1, it is unclear how the structure can be characterized. The same is true for claim 5, 8, 11, 12, 21, 26, 27, 30, 31, 35-42, 44-47, 55, 56, 59 and 63-68.

In claim 9, it is unclear what the “PTFE is since it is unclearly defined. The same is true for claim 31.

In claim 10, it is not understood how the element can be “undergoes” liquid repellency treatment.

In claim 12, it is unclear how the recitation “using an annular thermal fusion head” and “sucking air” is read on the preferred embodiment. Insofar as understood, no such steps can be determined on the drawings. The same is true for claims 13-14.

In claim 52, the recitation “the liquid tank” on line 4 lacks antecedent basis. It is unclear what the “liquid “ on line 3 and “the basis” on line 8 are, how a liquid can be introduced into a liquid and how this liquid is read on the preferred embodiment or seen on the drawings. The recitation “negative pressure” on line 6 and “liquid” on line 7 is confusing because it is unclear if this is an additional “negative pressure” and “liquid” or a further recitation “negative pressure” on line 4 and “liquid” on line 3. The same is true for claim 56, 59 and 63-68.

The remaining claims are dependent from the above rejected claims and therefore also considered indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8, 9/1, 9/5, 10, 21-24, 30-31, 32/21-22, 32/30-31, 33, 34/21-22, 34/30-31, 51/21-22, 51/30-31, are rejected under 35 USC 102 (b) as being anticipated by Amberntsson et al. (US Pat. 3,953,862).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Amberntsson et al. disclose in Figures 1-2 an ink jet printer comprising:

- a gas-liquid separating element (32, 33, 34) has a joined portion (threaded portion of an element 32) formed at least on an outer periphery of said gas-liquid separating element and joined to a communication section (31), and a ventilation area (33) that contributes to ventilation;
- said gas-liquid separating element (32, 33, 34) has further a non-joined portion between said joined portion and said ventilation area (33) (Figure 2);
- .- said non-joined portion is a non-heated portion (Figure 2);
- said gas-liquid separating element comprises PTFE (column 2, lines 55-56); and
- said gas-liquid separating element undergoes liquid repellency treatment (column 2, lines 64-67).

Claims 1-5, 11, 17-18, 18/17, 20/11, 20/17, 21-27, 30-31, 32/21-22, 32/30-31, 33, 36, and 50/36 are rejected under 35 USC 102 (e) as being anticipated by Mashiko et al. (EP Pat. 1142719A1).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Mashiko et al. disclose in Figures 1 and 3 an ink cartridge comprising

- a gas-liquid separating element (5) has a joined portion formed at least on an outer periphery of said gas-liquid separating element and joined to a communication section (12), and a ventilation area (11) that contributes to ventilation;
- said gas-liquid separating element (5) has further a non-joined portion between said joined portion and said ventilation area (11) (Figure 1);
- said non-joined portion is a non-heated portion (Figure 1);
- said gas-liquid separating element (5) comprises PTFE (page 3, lines 33-35)
- said gas-liquid separating element (5) undergoes liquid repellency treatment (page 3, lines 31-32);
- a container body (1) for storing a liquid (2);
- an opening (14) through which the liquid (2) is taken out;
- an atmosphere communication port (12) for providing communication between said container body (1) and the air;
- a gas-liquid separating element (5) for passing through only a gas, said gas-liquid separating element (5) being disposed in said atmosphere communication port (12); and
- an adhesive layer and/or a thermally bonded portion and/or a ultrasonic bonded portion for joining said gas-liquid separating element (5) and said atmosphere communication port (12), said adhesive layer being formed between said gas--liquid separating element (5) and said atmosphere communication port (12) (Figure 1, page 3, lines 48-50).

Claims 1-3, 21-22, 51-54, and 72-77 are rejected under 35 USC 102 (e) as being anticipated by Mashiko et al. (EP Pat. 1057644A).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Hirano et al. disclose in Figures 12-17 and 51-56 an ink jet printing apparatus comprising:

- a gas-liquid separating element (48) has a joined portion formed at least on an outer periphery of said gas-liquid separating element and joined to a communication section (53a), and a ventilation area (53) that contributes to ventilation (Figure 51);
- said gas-liquid separating element (48) has further a non-joined portion between said joined portion and said ventilation area (Figure 51);
- said non-joined portion is a non-heated portion (Figure 12);
- said gas-liquid separating element (5) comprises PTFE and said gas-liquid separating element (5) undergoes liquid repellency treatment (column 64, lines 36-40);
- a container body (20) for storing a liquid ;
- an opening (103) through which the liquid is taken out (Figure 51);
- an atmosphere communication port (53) for providing communication between said container body (20) and the air;
- a gas-liquid separating element (48) for passing through only a gas, said gas-liquid separating element (48) being disposed in said atmosphere communication port (53a); and
- a negative-pressure generating mechanism (31) for introducing a liquid into a liquid by exerting negative pressure on the liquid tank, the liquid tank (20) having a negative-pressure introducing section for introducing negative pressure into the liquid tank and a liquid intake section for

taking a liquid in the liquid tank on the basis of the negative pressure introduced by the negative-pressure introducing section (Figures 51-55).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5-20, 23-50, 55-71 are rejected under 35 USC 103 (a) as being unpatentable over Hirano et al. (EP Pat. 1057644A) in view of Mashiko et al. (EP Pat. 1142719A1).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Hirano et al. disclose the basic features of the claimed invention were stated above but do not disclose a liquid tank comprising an adhesive layer and/or a thermally bonded portion and/or a ultrasonic bonded portion for joining said gas-liquid separating element and said atmosphere communication port, said adhesive layer being formed between said gas--liquid separating element and said atmosphere communication port.

Mashiko et al. disclose in Figures 1 and 3 an ink cartridge comprising an adhesive layer and/or a thermally bonded portion and/or a ultrasonic bonded portion for joining said gas-liquid separating element (5) and said atmosphere communication port (12), said adhesive layer and/or

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a thermally bonded portion and/or a ultrasonic bonded portion being formed between said gas--liquid separating element (5) and said atmosphere communication port (12) (Figure 1, page 3, lines 48-50).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Mashiko et al. in the Hirano et al. ink jet printing apparatus for the purpose of securely connecting between two elements.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (703) 305-8194. The examiner can normally be reached on Monday to Friday from 8:00 A.M.to 4:00 P.M..

The fax number of this Group 2861 is (703) 305-3431 or 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to be 'Anh T.N. Vo', with a long horizontal flourish extending to the right.

ANH T.N. VO
PRIMARY EXAMINER

August 14, 2003